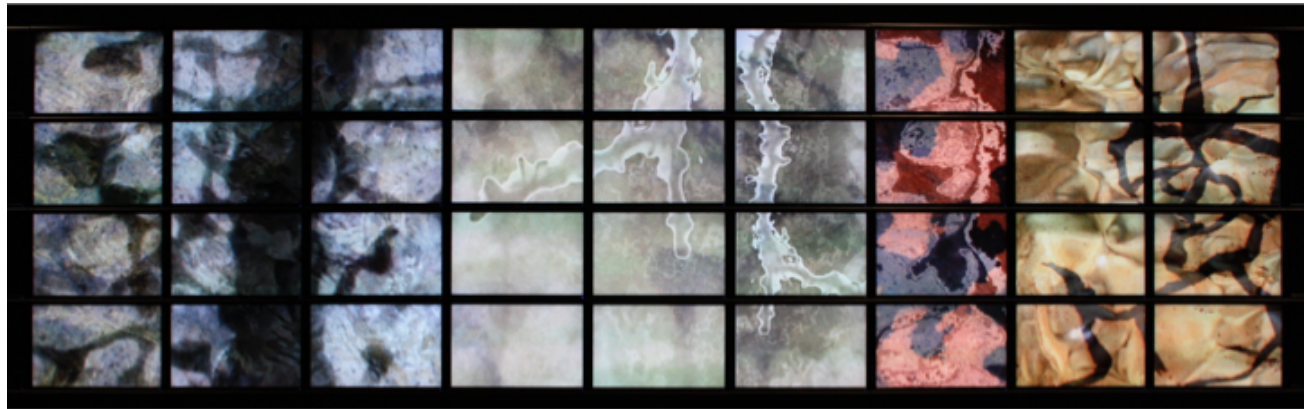


## Francesca Samsel

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*Routing Memory*, Advanced Visualization Lab, UTSA, in collaboration with Dr. Santamaria, UTSA

## Education

**M.F.A.** University of Washington, Seattle, WA

**B.F.A.** California College of Arts, Oakland, CA High Distinction

Virginia Commonwealth University, Richmond, VA

## Professional Experience

- 2013 - **University of Texas at Austin**, Center for Agile Technologies, *Research Associate*,  
present Research focuses on art, science and visualization collaborations, which aid scientists in the exploration of their data and enables in-depth engaging understanding of the pressing scientific issues of our time.
- 2013 **University of Texas at El Paso**, *Assistant Research Professor*,  
2014 CyberShare Center for Excellence, Department of Computer Science  
Research focused on the contributions art could bring to facilitating greater understanding of environmental science.
- 2012 - **Los Alamos National Laboratory**, Data Science at Scale, Artist-in-Residence, working with  
present scientists throughout the laboratory to assist in gaining greater insight into their data.
- 2014 **IEEE Computer Graphics and Applications**, Art on Graphics, Department Co-chair,  
Forming a new department on the intersection between art, graphics and visualization, with co-chair, Bruce Campbell, RISD, Art on Graphics Department. Publishing January 2015
- 2013 - **University of Texas at Austin**, Center for Agile Technologies, *Research Affiliate*,  
present EnCompass Labs - Research collaboration with Dr. Suzanne Pierce, Jackson School of Geology, UT Austin
- 1986 - **Samsel Arts**, *Visual Artist*, activities include - working with scientists and visualization specialist to enhance scientific communication, large-scale public art, murals, sculpture and digital environments, work based on collaboration with scientists, detailed documentation - [www.francescasamsel.com](http://www.francescasamsel.com)
- 2002 - **Fordham University** - *Full-time Adjunct Faculty*, Department of Art,  
2007 Marymount College Campus, Tarrytown, NY  
Taught all levels of Drawing, 2-D and 3-D Design, and Sculpture

## **Publications, Lectures and Synergistic Activities**

- 2015 ***Minding the Gap: Visual Arts as a Bridge to Data-Intensive Earth Science***  
Linda Deck, Francesca Samsel, Bruce Campbell, Merging Left and Right Brains:  
At the intersection of art and geoscience, AGU Fall Meeting 2015  
***Visualization of Ocean Currents and Ocean Eddies in High-Resolution Global Climate-Ocean Model***, Francesca Samsel, Mark Petersen, Gregory Abram, James Ahrens,  
ACM Supercomputing 2015, (in submission)  
***Color Usage in Scientific Visualization***, Lecture, Data Science at Scale Summer School,  
Los Alamos National Laboratory  
***Color Mapping in VIS: Perspectives on Optimal Solutions***, Panelist, IEEE VIS 2015  
***Climate Prisms: Connecting Climate Research and Climate Modeling via the Language of Art***, Francesca Samsel, Linda Deck, Bruce Campbell,  
James Ahrens, IEEE VIS VISAP 2015  
***Pursuing Value in Art-Science Collaborations***, B.Campbell, F. Samsel,  
IEEE Computer Graphics & Applications, Jan./Feb. 2015  
***Colormaps that Improve Perception of High-Resolution Ocean Data***, Francesca Samsel,  
Mark Petersen, Greg Abram, Terece Geld, Joanne Wendelberger, and James Ahrens,  
SIGCHI 2015, Seoul  
***Art as an Inroad to Climate Change Sciences***, Lecture, Bradbury Museum of Art,  
Los Alamos National Laboratory  
***Visualization and Analysis of Large-Scale Atomistic Simulations of Plasma–Surface Interactions***, Wathsala Widanagamaachchi, Karl Hammond, Li-Ta Lo, Brian Wirth,  
Francesca Samsel, Christopher Sewell, James Ahrens and Valerio Pascucci, IEEE Euro Vis
- 2014 ***Frontiers of Visualization***, speaker, sponsored by NITRD at the NSF, Washington D.C.  
***Computer Graphics Forum***, speaker, sponsored by the DOE, Argonne National Labs, Lemont, IL  
***IEEE Vis***, VISAP Program Committee, Reviewing submissions to the Art Program at Visweek  
***ATX LASER - Art Science Evening Rendezvous***, Inaugural Events speaker,  
Moderated by JD Talasek, Director, Culture Programs at the National Academy of  
Sciences, Lecture series at the Umlauf Museum, Austin, TX  
***Duke University***, Media Arts and Sciences Rendezvous,  
*Creating Mutually Beneficial Multiple-Outcome Collaborations*  
Duke Visualization Friday Forum, Department of Computer Science,  
Invited Speaker, Raleigh, NC
- 2013 ***IEEE Vis 2013, Art, Science, Visualization Collaborations, Examining the Spectrum***, In  
Proceedings of the IEEE VIS Arts Program (VISAP), Atlanta, Georgia, October 2013  
[http://visap2013.sista.arizona.edu/papers/Samsel\\_ExaminingTheSpectrum.pdf](http://visap2013.sista.arizona.edu/papers/Samsel_ExaminingTheSpectrum.pdf)  
***NSF / NEA SEAD Network conference speaker***, NSF, NEA and the Smithsonian co-  
sponsored Invitational Conference, *Speaker*, Art-Science-Research Collaborations,  
Smithsonian Institute, Washington, DC <http://sead.viz.tamu.edu/projects/conference.html>  
***DASER panelist at the National Academy of Sciences***, in Conjunction with SEAD  
conference, National Academy of Sciences, Washington, D.C.  
***HCI – ISE***, Human Computer Interaction and Informal Science Education Conference,  
Invitational, Sponsored by IDEUM and NSF, Albuquerque, NM  
***SEAD NETWORK, NSF, NEA, and Smithsonian sponsored Symposium***,  
Invited panelist and speaker, Smithsonian Institute, Washington, D.C.  
***LHI Art – Sci Symposium***, Terra Firma, Solo Exhibition, Advanced Visualization Lab,

- University of Texas at San Antonio, San Antonio, TX
- 2012 **College Art Association Conference 2013**, *Meet the Scientists*, half-day workshop on facilitating collaborations between artists and scientists, New York City, NY  
<http://conference.collegeart.org/2013/sessions/>
- SARC Artist-in-Residence, Los Alamos National Labs**, sponsored by the Science - Artist Research Collaboratory, ISEA 2012 and the New Mexico Consortium, Los Alamos, NM <http://nmsarc.wordpress.com/sarc-2012-report/>
- Los Alamos National Laboratory**, Lecture, *Applying Color Theory to Scientific Visualization*, Data Science at Scale Summer School Lecture Series, Los Alamos National Laboratory
- IEEE Vis 2012**, *Scheherazade's Toolbox*, Lead a half-day workshop presentation for visualization scientists on artistic tools, Seattle, WA  
<http://ieevis.org/year/2012/workshop/visweek/scheherazades-toolbox-artists-meet-visualization>
- 2011 **IEEE Vis Discovery Exhibition**, 2011, talk, paper and poster, Providence, RI  
<http://www.discoveryexhibition.org/pmwiki.php/Entries/2011Samsel>
- SIGGRAPH 2011**, *Oil.Pixels and Poetry*, Dailies presentation, Vancouver, B.C.  
[dl.acm.org/citation.cfm?id=2047514](http://dl.acm.org/citation.cfm?id=2047514)

### Selected Solo Exhibitions

- 2011 **Presence Absence**, ACES Visualization Lab, University of Texas at Austin, Austin, TX
- 2010 **E.Y.E on You**, Katonah Museum of Art, Katonah, NY
- 2008 **E.Y.E. Retrospective**, Paramount Center for the Arts, Peekskill, NY
- 2007 **E.Y.E. - collaborative performance**, Katonah Museum of Art, Katonah, NY
- 2005 **Invasive species**, Maryland Hall Center for the Arts, Annapolis, Maryland
- Liquid Thought**, Butler Hall Gallery, Fordham University - Marymount College Campus, Tarrytown, NY
- 2004 **Aqueous**, Citibank, New York City, NY
- 2003 **Migration**, The Studio Annex, New York City, NY
- Segments of Identity**, Manhattan Graphics Center, New York City, NY

### Selected Invitational Exhibitions

- 2015 **IEEE VIS VISAP Art Exhibition**, *Climate Prisms: The Arctic* Chicago Institute of Art
- Bradbury Science Museum**, *Climate Prisms: The Arctic*, permanent installation at the Bradbury Science Museum, accompanied by two traveling exhibitions scheduled to tour science museums across the country in 2016.
- 2013 **EAST 2013**, Visiting Artist, Resonance Studios, Austin, TX
- Advanced Visualization Lab**, "Naturally Connected", Sponsored by the Land Heritage Institute, University of Texas at San Antonio, San Antonio, TX
- 2012 **IEEE Visualization Art Exhibit 2012**, *Transmission*, based on the work of Dr. Lauren Meyers, Director of Scientific Computing, UT Austin and in collaboration with Dr. Kelly Gaither, Director of Visualization, TACC, UT Austin
- Seeing Ourselves**, MuseCPMI, New York City, NY  
[http://www.huffingtonpost.com/2012/03/16/seeing-ourselves\\_n\\_1332228.html](http://www.huffingtonpost.com/2012/03/16/seeing-ourselves_n_1332228.html)

- 2011 **IEEE Vis 2011**, VisWeek 2011 Art Exhibit, *Black Rock, White Japan*, video presentation and works of paper, Providence, RI, in collaboration with Kelly Gaither, Director of Visualization, TACC, University of Texas at Austin, Brandt Westing, TACC ACES Visualization Lab, UT Austin, Providence, RI  
**Turbulence and Topography**, a 30-minute tiled-display animation based on the climate research of Dr. Craig Tweedie, University of Texas at El Paso, El Paso, TX  
 Commissioned by Cyber-ShARE Center for Excellence and the Rubin Center for the Arts, El Paso, TX  
[www.tacc.utexas.edu/news/feature-stories/2012/artist-in-the-lab](http://www.tacc.utexas.edu/news/feature-stories/2012/artist-in-the-lab)  
**Presence Absence**, a solo exhibit of tiled-display animations reflecting on the 2010 Gulf Oil Spill, ACES Visualization Lab, University of Texas at Austin, Austin, TX  
<http://www.tacc.utexas.edu/news/events/presence-absence>  
**Tracing Connections**, Advanced Visualization Lab, Lab opening ceremonies, University of Texas at San Antonio, San Antonio, TX  
**The Algorithm Show**, Manhattan Graphics Center, New York City, NY  
**Works on Paper**, E.Y.E. Collaborative, Katonah Museum of Art, sponsored by the New York Department of Energy Conservation
- 2010 **Paper 2**, Gallery Shoal Creek, exhibition of prints and works on paper with Karen Kunc and Leonard Lehner, Austin, TX
- 2009 **Tributaries**, Maxwell Fine Arts, Peekskill, NY  
**New Work**, Davidson Galleries, Seattle, WA  
**MGC Bloomsbury Auction**, Bloomsbury Auction House, New York City, NY  
**Manhattan Graphics Center Members Annual**, Manhattan Graphics Center, NYC, NY
- 2008 **E.Y.E.** mural performance, ABC No Rio, New York City, NY  
**E.Y.E.** Collaborative, the Amana Project Event, The New Museum, New York City, NY  
**Studios Open**, sponsored by The Studio for Contemporary Art, Armonk, NY
- 2007 **New Work**, Davidson Galleries, Seattle, WA
- 2006 **American Impressions: Contemporary American Printmaking 2006**, Ben Shahn Galleries, William Patterson University, Wayne, NJ Curated by Dr. Marilyn Kushner, Print Dept. Chair, Brooklyn Museum of Art  
**Multiple Encounters**, Contemporary American and Indian Printmakers  
 Indira Gandhi National Art Museum, New Delhi, India  
 Travelled to five other locations within India.
- 2005 **Barns Should Be Red, Tires Should Be Black, Our Tears are Clear and Salty**, Peekskill Project 2005, E.Y.E. team mural, Peekskill, NY  
**Winter Solstice**, The Studio: a space for contemporary art, Armonk, NY  
**New Work - Contemporary Prints**, Davidson Galleries, Seattle, WA  
**New York Printmakers**, New York Law School Lobby Gallery, New York, NY  
**Seeing Red**, Rockland Center for the Arts, Nyack, NY
- 2004 **E.Y.E.** performance, Convergence Studios, New York City, NY  
**Artists of EYE**, Pelham Art Center, Pelham, NY

- Wishing You Were Here***, Manhattan Graphics Center, New York City, NY  
***Inside / Out: Public Art in Westchester***, *Thoughts, Blurs & Detours*,  
 Westchester Arts Council, White Plains, NY
- 2003 ***Scientific Impressions***, Davidson Galleries, Seattle, WA  
***9 / 11***, The New York Historical Society, New York City, NY  
***Etchings & Drawings***, Maryland Federation of Art, Baltimore, MD  
***Winter Solstice***, The Studio: An Alternative Space for Contemporary Art, Armonk, NY  
***The Drawing Show***, Westchester Arts Council, White Plains, NY
- 2002 ***The Object of Art***, Northern Westchester Center for the Arts, Mt.Kisco, NY  
***Inaugural Exhibition***, The Studio: Alternative Contemporary Art, Armonk, NY  
***From the Studio***, Mural Arts Gallery, Philadelphia, PA  
***Manhattan Graphics Annual***, Manhattan Graphics Center, New York City, NY
- 2001 ***Prints U.S.A. 2001***, Springfield Art Museum, Springfield, MO  
***New York Printmakers***, La Galerie Delta, Paris, France & Warsaw, Poland  
***Breaking the Rules***, Katonah Museum of Art, Katonah, NY  
***Generations II***, A.I.R. Gallery, New York City, NY
- 2000 ***Unbottled; New York's Waters***, The Hammond Museum, North Salem, NY  
***Open Studios Invitational***, Westchester Arts Council, White Plains, NY

#### **Selected Public Art Commissions**

- 2007 ***Woven Gifts*** – a 2000 sq. ft outdoor mural about the contributions of immigrants who have settled in the community, Sponsored by the Downtown Business development Corp and The Westchester Arts Council, Yonkers, NY
- 2005 ***Invasive Species***, - mixed media outdoor installation including over 100 small sculptures installed on the Center's grounds, Maryland Hall Center for the Arts, Annapolis Maryland  
***Glacial*** - a one-half acre in-ground rock drawing, Rockland Center for the Arts, Nyack, NY
- 2003 ***Held by the Wind*** – a 1500 sq. ft. mural for SEPTA public transit, commissioned by The Mural Arts Program and the City of Philadelphia, Philadelphia, PA
- 2002 ***Nature's Markers*** - an 18'x 28' ceramic and concrete sundial, funded by The Hudson River Foundation, Westchester Arts Council, Mohansic Educational Park, Yorktown, NY  
***Season's Walk*** – 125 ft inlayed sidewalk of the microscopic aquatic life in the Hudson River, Metro North Croton-Harmon Train Station, Croton-on-Hudson, NY
- 2001 ***Seasons of the Estuary*** - 1400 sq. ft. outdoor mural depicting aquatic life in the Hudson River, Metro North Croton-Harmon train station, Croton-on-Hudson, NY
- 2000 ***The Hudson River Highlands: a micro macro view***, Croton Point Park, Croton-on-Hudson, NY (in collaboration with Mariah Fee)

#### **Selected Grants**

- 2015 PI: Color Reimagined: An Intuitive Tool to Generate Perceptually Optimized, Statistically-based Colormaps for Scientific Visualization, NSF 15-574, \$889,316. (in submission)

PI: Climate Prisms: The Arctic, working with national laboratory scientists depicting the research of the Next Generation Ecological Experiments: The Arctic, DOE funded research, Los Alamos National Laboratory, \$37,000. 10/15/2015 – 10/14/2016

PI: Optimizing the Energy Usage and Cognitive Value of Extreme Scale Data Analysis Approaches, from Advanced Scientific Computing Research, Department of Energy, Office of Science, DE-SC0012516, \$300,000. 9/15/2014 – 9/14/2017

- 2014 PI: Los Alamos National Lab Project# PO 291375: Designing Colormaps and Glyphs for Improved Scientific Visualizations. The University of Texas at Austin, 7/1/2014-9/30/2015 \$95,000
- 2013 PI: Designing Colormaps and Glyphs to Achieve a Specific Purpose, Data Science at Scale, Los Alamos National Laboratory, Awd# 26-3512-48, 9/5/2013 – 9/30/2014 \$89,999.
- 2007 **Westchester Arts Council, Arts Alive Grant**, for *Woven Gifts*, Yonkers, NY
- 2005 **Decentralization Grant**, for EYE performance & exhibition, Westchester Arts Council, White Plains, NY
- 2001 **Arts Alive Grant** for *Metamorphosis*, Westchester Arts Council, Yorktown, NY
- 2000 **New York Environmental Fund Grant** for *Treasure Hunt Stones*, Yorktown, NY  
**Decentralization Grant** from the Westchester Arts Council for *Seasons Walk* Metro-North Croton –Harmon Train Station, Croton-on-Hudson, NY  
**Decentralization Grant** from the Westchester Arts Council, *Hudson River Highlands: A Micro Macro View*, Croton Point Park, Croton-on-Hudson, NY